REMARKS

Applicants thank the Examiner for conducting the telephone interview on June 15, 2004, and for the Examiner' thoughtful consideration of this case. During the telephone interview, Applicants and Examiner discussed Claim 1 with respect to the *Araujo* and *Singhal* references. Specifically, Applicants and Examiner discussed alternative claim language, which is included among the claim amendments. Applicants have also included claim amendments to improve the readability of the claims. Applicants cancel Claims 2, 25, and 34 without prejudice or disclaimer and add new dependent claims 41-45. Applicants understand that Examiner was unable to determine the patentability of Applicants' claims at the conclusion of the interview. Applicants respectfully request reconsideration and favorable action in this case.

Objections

In the Office Action, the Examiner objects to the line numbering of the claims as originally submitted in the Patent Application. In this Response, Applicants have numbered the claims in the manner requested by the Examiner.

The Examiner also objects to the Specification because of an informality on Page 18. Applicants have amended the paragraph beginning "Configuration header 114 encapsulates a tunneling signal . . ." on Page 18, of the Specification to address the typographical error identified by the Examiner. Thus, Applicants respectfully request that the objection to the Specification be withdrawn.

Section 103 Rejections

The Examiner rejects Claims 1-7, 10-16, 18-21, 23-25, and 28-38 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,301,229 issued Araujo et al. ("*Araujo*") in view of U.S. Patent No. 6,633,761 issued to Singhal et al. ("*Singhal*"). Applicants respectfully traverse these rejections for the reasons stated below.

First, Applicants respectfully submit that the proposed *Araujo-Singhal* combination does not disclose each and every feature as recited in Applicant's claims. For example, Claim 1 of the present application, as amended, recites:

> A method of communicating with an element within an enterprise network, comprising:
>
> at a first client, encapsulating a first point-to point protocol signal within a network address request header comprising a Dynamic Host Configuration Protocol DISCOVER header or a Bootstrap Protocol REQUEST header, the first point-to-point protocol signal comprising a header that includes an identifier of a second client; and
>
> communicating the encapsulated signal toward a tunneling server.

Applicants respectfully submit that neither *Araujo* nor *Singhal* disclose, teach, or suggest "at a first client, encapsulating a first point-to point protocol signal within a network address request header comprising a Dynamic Host Configuration Protocol DISCOVER header or a Bootstrap Protocol REQUEST header, the first point-to-point protocol signal comprising a header that includes an identifier of a second client," as recited in Applicants' Claim 1. *Araujo* merely discloses a tunneling system for encapsulating a signal within a tunneling protocol. Specifically, *Araujo* discloses that "Point-to-Point Protocol, as it is defined, is used for transporting multi-protocol datagrams over point-to-point links, such as those between customer premises equipment CPE and a remote access server RAS for an ISP." (Column 2, lines 1-4). The tunneling system includes "resources for executing tunneling protocols through the access provider network, including for example the layer 2 tunneling protocol, the layer 2 forwarding protocol, and the point-to-point tunneling protocol." (Column 5, lines 1-4). "This step of encapsulating the packets formatted according to point-to-point communication protocol at intermediate devices includes in one aspect of the invention the process of generating encapsulation data supporting tunneling protocol or other transport mechanisms to the access provider network, and constructing network data packets that include encapsulation data or have other formatting peculiarities." (Column 5, lines 4-10). Accordingly, the tunneling system of *Araujo* merely discloses encapsulating a point-to-point session within a tunneling header.

The additional teachings of *Singhal* do not cure these deficiencies. *Singhal* discloses a networking system for enabling seamless connectivity and roaming of short-range wireless

computing devices. (Column 1, lines 7-10). "To maintain connectivity when moving from one access point to another, a device must retain its Internet Protocol (IP) address." (Column 1, lines 56-58). Many devices, however, must "establish a new Point-to-Point Protocol (PPP) connection with each access point" and, thus, "request a new IP address (using the Dynamic Host Configuration Protocol, or DHCP)." (Column 1, lines 58-63). Thus, the networking system of *Singhal* merely uses a DHCP request to obtain a new IP address for the client device as it roams. To this end, *Singhal* discloses that connectivity is established with a plurality of network access points, which are referred to as Handoff Management Points (HMPs). (Column 2, lines 58-64). "[A] DHCP request issued by the client device at Block 600 is received by the HMP through which it [the client device] is currently communicating (Block 605)." (Column 9, lines 36-38). "The HMP then encapsulates this DHCP request into a request message, and forward this encapsulated message to the Core server (Block 510)." (Column 9, lines 38-40). Upon receiving the encapsulated DHCP request, the Core "determines (at decision Block 620) whether an entry already exists in the Core's AUL Registry for this MAC address." (Column 9, lines 52-54). "If so, ... the existing IP address from the AUL Registry is selected for assignment to the requesting device." The IP address is then communicated back to the requesting client who "then knows the IP address that it should use for further communications."

As such, the DHCP request disclosed in *Singhal* is merely used to retrieve an IP address for the roaming client device for the initiation of a communication session. Although *Singhal* discloses that the HMP is capable of encapsulation, *Singhal* merely discloses that the DHCP request is encapsulated within a request message. At a minimum then, *Singhal* also cannot be said to disclose, teach, or suggest "encapsulating a first *point-to point protocol signal* within a network address request header comprising a Dynamic Host Configuration Protocol DISCOVER header or a Bootstrap Protocol REQUEST header, the first point-to-point protocol signal comprising a header that includes an identifier of a second client," as recited in Applicants' Claim 1. Furthermore, to the extent that anything is encapsulated in *Singhal*, the encapsulation is not performed at a client but rather at an intermediary device, the HMP.

Second, assuming for purposes of argument only that the proposed combination discloses the limitations of Claim 1 (which Applicants dispute), the Examiner has not cited language in either reference or within information commonly known to those skilled in the art that provides the necessary motivation or suggestion to combine these two references. Further, it would not have been obvious to one skilled in the art to make the combination. The mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). Moreover, if a "proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." M.P.E.P. § 2143.01. As discussed above, the objective of *Araujo* is merely to provide a tunneling system using standard tunneling protocol. The unrelated objective of *Singhal*, on the other hand, is to provide a networking system for obtaining an IP address to be assigned to a roaming client device for the establishment of a communication session. The Examiner has not provided any evidence that suggests that a DHCP header should be used to carry other addressed signals.

Additionally, Applicants submit that one of ordinary skill in the art at the time of invention would not have been motivated to make the proposed combination because there would be no technological motivation for engaging in the modification of *Araujo* to include the DHCP request of *Singhal*. Applicants respectfully submit that the teachings of *Araujo* are incompatible with the teachings of *Singhal*. The tunneling system of *Araujo* "distributes certain recurring protocol processing functions to the endpoints" to improve "end-to-end performance gains." (Column 3, lines 11-15). Thus, *Araujo* is disclosed with a primary objective of moving functionality to the endpoints. As discussed above, however, the functionality disclosed in *Singhal* and relied upon by the Examiner is performed *away from* the endpoints, at intermediary devices, or HMPs. The Examiner's speculation that "it would have been obvious" to make the proposed combination "because *Singhal's* method of encapsulating a dynamic host configuration protocol request would increase the efficiency of *Araujo*'s system by allowing the process of address determination to be included in a packet in a point-to-point communication session" (Office Action, page 5) simply relies upon hindsight. It is improper for an Examiner to use hindsight having read the Applicant's

disclosure to arrive at an obviousness rejection. *In re* Fine, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re* Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Because the Examiner has merely used Applicants' claim as an instruction manual to piece together the tunneling system disclosed in *Araujo* with the address request process disclosed in *Singhal*, Applicants respectfully submit that the proposed *Araujo-Singhal* combination is improper and should not be used here to reject Applicants' claim.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claim 1.

The Examiner also relies on the *Araujo-Singhal* combination to reject independent Claims 12, 19, 24, and 33. Claim 12 recites "at a first client, encapsulating a first point-to point protocol signal within a network address request header comprising a Dynamic Host Configuration Protocol DISCOVER header or a Bootstrap Protocol REQUEST header, the first point-to-point protocol signal comprising a header that includes an identifier of a second client." Claim 24 recites "a protocol stack operable to generate a first point-to-point protocol signal comprising a header that includes an identifier of a second client" and "a tunneling module operable to encapsulate the first point-to-point encapsulated signal within a network address request header comprising a Dynamic Host Configuration Protocol DISCOVER header or a Bootstrap Protocol REQUEST header." Claim 33 recites "a tunneling module operable to receive a first point-to-point protocol signal encapsulated within a network address response header and to remove the network address response header to expose the first point-to-point protocol signal, the first point-to-point protocol signal comprising a header that includes an identifier of a client, the network address response header comprising a Dynamic Host Configuration Protocol OFFER header or a Bootstrap Protocol RESPONSE header." Thus, for reasons similar to those discussed above with regard to Claim 1, Applicants respectfully submit that neither *Araujo* nor *Singhal* disclose, teach, or suggest each and every element set forth in Applicants' Claims 12, 24, and 33.

Regarding Independent Claim 19, Applicants respectfully submit that at the very least the *Araujo-Singhal* combination does not disclose, teach, or suggest "communicating the encapsulated signal toward a tunneling server operable to identify and remove the network address request header, to encapsulate the point-to-point protocol signal within a network address response header, and to communicate the encapsulated response signal toward a second client." With the exception of the network address request header, the Examiner relies on *Araujo* for disclosure of these features. As discussed above, however, *Araujo* is limited to a tunneling system that "distributes certain recurring protocol processing functions to the endpoints." (Column 3, lines 11-15). The portion of the reference relied upon by the Examiner for disclosure of the above recited features merely describes the processing of data from the remote access server of the internet service provider (ISP RAS) towards the ADSL endpoint (modem at the customer premises). (Column 2, lines 37-41; Column 13, lines 28-20). Specifically, *Araujo* discloses that "the access multiplexer will not be removing the LT2P multiplexing header prepended to PPP frames by the RAS." (Column 13, lines 34-37). Rather, the access multiplexer sends a Remove_Tag command to inform the CPE that it should remove a certain number of bytes from the beginning of each frame. (Column 13, lines 30-34). Thus, *Araujo* does not disclose, teach, or suggest "*a tunneling server* operable to identify and remove the network address request header," as recited in Applicants' Claim 19. *Araujo* explicitly describes the functionality relied on by the Examiner to show this element as residing at the endpoint.

Additionally, upon receiving the point-to-point signal, *Araujo* discloses that the ISP RAS looks "at the first 6 bytes after the header" in the first cell of a new frame. (Column 13, lines 37-44). "If the very first bit of the first byte was a '0', it would mean that an L2TP data payload frame was being transferred by the RAS." (Column 13, lines 48-50). "The access multiplexer would then check the L2TP Tunnel ID and Call ID associated with the frame (this is still part of the first 6 bytes of the first cell), and look into its tables to determine the CPE that the data is destined for." (Column 13, lines 50-54). Thus, the RAS and access multiplexer are merely determining from the first 6 bytes the destination of the point-to-point signal. The access multiplexer "would then forward the initial cell and the remaining cells associated frame to the appropriate CPE." (Column 13, lines 54-57). As such, Applicants respectfully submit that *Araujo* also does not disclose, teach, or suggest a tunneling server

operable "to encapsulate the point-to-point protocol signal within a network address response header, and to communicate the encapsulated response signal toward a second client." The recited features and operations are also absent from the disclosure of *Araujo*, as relied upon by the Examiner.

Furthermore, for reasons similar to those discussed above with regard to Claim 1, Applicants respectfully submit that one of ordinary skill in the art at the time of invention would not have been motivated to make the *Araujo-Singhal* combination proposed by the Examiner. The Examiner relies on impermissible hindsight.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claim 19.

Dependent Claims 3-7 and 10-11 depend upon independent Claim 1. Dependent Claims 13-16 and 18 depend upon independent Claim 12. Dependent Claims 20-21 and 23 depend upon independent Claim 19. Dependent Claims 28-32 and 35-38 depend upon independent Claim 24. Accordingly, Claims 3-7, 10-11, 13-16, 18, 20-21, 23, 28-32, and 35-38 are not anticipated by the proposed *Araujo-Singhal* combination because they include the limitations of their respective independent claims, which Applicants have shown above to be allowable.

Additionally, dependent Claims 3-7, 10-11, 13-16, 18, 20-21, 23, 28-32, and 35-38 recite additional features and operations that further distinguish the art. As one example, Claim 3 recites that "communicating the encapsulated signal toward a tunneling server comprises communicating the signal toward a router configured to relay network address requests to the tunneling server without referencing a routing table indexed by data channel addresses." Claims 13 and 20 recite certain similar, though not identical, features. As another example, Claim 4 recites that "the identifier comprises a control channel address of the second client, the control channel address being different from any data channel address recognized by the router." Claims 14, 21, and 29 recites certain features that are similar, though not identical, to those recited in Claim 4. As discussed above, however, *Araujo* discloses that the "access multiplexer would then check the L2TP Tunnel ID and Call ID

associated with the frame (this is still part of the first 6 bytes of the first cell), and *look into its tables to determine the CPE* that the data is destined for." (Column 13, lines 50-54, emphasis added). Accordingly, the recited features are absent from the disclosure of *Araujo*.

As further examples, Claim 5 recites that "the first point-to-point protocol signal further comprises a payload including information to be applied to an application residing at the second client." Claim 15 recites certain similar, though not identical, features. Claim 6 recites "the application residing at the second client comprises a maintenance application operable to diagnose operational characteristics of the second client." Claims 30 and 35 recite certain similar, though not identical, features. Claim 7 recites that "the first point-to-point protocol signal further comprises a payload including at least a portion of an application to be installed on the second client." Claim 16 recites certain similar, though not identical features. As discussed above with respect to Claim 1, however, *Singhal* merely discloses a networking system that uses a DHCP request to obtain a new IP address to be communicated back to the requesting client and to be used by the requesting client for further communications. Accordingly, the recited features are absent from the disclosure of *Singhal*.

For at least these reasons, Applicants submit that the rejections of Claims 3-7, 10-11, 13-16, 18, 20-21, 23, 28-32, and 35-38 are improper and respectfully request reconsideration and allowance of Claims 3-7, 10-11, 13-16, 18, 20-21, 23, 28-32, and 35-38.

The Examiner rejects Claims 8-9, 17, 22, 26-27, and 39-40 under 35 U.S.C. § 103(a) as being unpatentable over *Araujo* and *Singhal* in view of "Official Notice." Applicants respectfully traverse these rejections for the reasons stated below.

First, dependent Claims 8-9, 17, 22, 26-27, and 39-40 depend upon independent Claims 1, 12, 19, 24, and 33, respectively. Accordingly, Claims 8-9, 17, 22, 26-27, and 39-40 are not anticipated by the proposed *Araujo-Singhal-Official Notice* combination because they include the limitations of their respective independent claims, which Applicants have shown above to be allowable. Second, for reasons similar to those discussed above with regard to Claim 1, Applicants respectfully submit that one of ordinary skill in the art at the time of invention would not have been motivated to make the combination of references

proposed by the Examiner. Third, Applicants note the Examiner's taking of Official Notice and respectfully traverses the rejections. To the extent that the Examiner maintains this rejection based on "Official Notice," "well-known art," common knowledge, or other information within the Examiner's personal knowledge, Applicants respectfully request that the Examiner cite a reference in support of this position or provide an affidavit in accordance with M.P.E.P. § 2144.03 and 37 C.F.R. § 1.107.

For at least these reasons, Applicants submit that the rejections of Claims 8-9, 17, 22, 26-27, and 39-40 are improper and respectfully request reconsideration and allowance of Claims 8-9, 17, 22, 26-27, and 39-40.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clear and apparent, Applicants respectfully request reconsideration and allowance of the pending claims.

If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

Applicants enclose a check in the amount of $36.00 to cover the cost of additional dependent claims. However, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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